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ABSTRACT

This project examines policies related to facilities at public institutions of higher education in Oklahoma in the context of a current legislative debate over a bond issue to fund facilities. The last bond issue for Oklahoma higher education was in 1968. Verification of a representative sample of 27 campus master plans validated an earlier estimate by state regents of $1.1 billion in total capital needs. This study calls for the passage of the bond issue allocating $258 million to higher education. The study also recommends a bond issue of $685 million to be funded within the next 3 years through a permanent Gross Receipts Tax on Homeowner Electric Usage of .00335 cents per kilowatt hour. This would produce a revenue stream of between $65 and $80 million per year to allow for bonding of $685 million to be repaid over a 20 year period. In addition the study recommends the creation of an Oklahoma Higher Education Facilities Authority to administer the receipts of the tax, develop and approve a coordinated capital master plan for the states infrastructure, and appropriate sums needed to the governing boards of the specific institutions. These recommendations would address the current crisis and create a long-term solution to maintaining higher education facilities. (JB)

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"Oklahoma higher education has been very patient with us,
let's not respond by being passive."

--Governor David Walters
February 4, 1991

THE OKLAHOMA STATE STUDY

OF

OKLAHOMA'S PUBLIC HIGHER EDUCATION

PHYSICAL INFRASTRUCTURE

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THE OKLAHOMA STATE STUDY OF OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE

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OKLAHOMA STATE STUDY OF OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE

ABSTRACT

The purpose of the Oklahoma State Study of Oklahoma's Public Higher Education Physical Infrastructure has been to examine policies related to facilities at public institutions of higher education in the State of Oklahoma. This report includes an Executive Summary, Summaries of Key Findings and Recommendations, and analysis and proposed directions for public policy regarding public higher education infrastructure.

THE OKLAHOMA STATE STUDY OF OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE

"Oklahoma higher education has been very patient with us,
let's not respond by being passive."
--Governor David Walters, February 4, 1991

EXECUTIVE SUMMARY

Even the most cursory review of the available information reveals that Oklahoma's public higher education physical infrastructure is in crisis. There is currently no long term plan to provide for higher education's infrastructure needs. This impedes higher education's ability to provide access to postsecondary educational opportunities, as well as to provide leadership in economic development. It is highly likely that Governor Walters severely understated just how patient higher education has been with Oklahoma's political leadership, given the fact that the last bond issue for Oklahoma public higher education was passed nearly a quarter century ago, in 1968. With the end of the Cold War, bond issues have been seen as the method of choice for long term financing.

The verification of a representative sample of the 27 campus master plans performed for this study strongly validates the February, 1991 estimate by the Oklahoma State Regents for Higher Education (OSHRE) of $1.1 billion in total capital needs, of which $800 million was projected by the OSRHE to come from state sources. If anything, the OSRHE have understated the need, in light of recent statements by nationally recognized higher education experts such as Clark Kerr, who believe that the sea of red ink precludes significant funding from federal sources.

The near quarter-century of neglect to provide a sound basis for funding public higher education physical infrastructure needs has produced this crisis. **The crisis is directly related to higher education's capacity to provide leadership for Oklahoma's future economic development**. Higher education's ability to provide access and excellence are severely impaired: access for all of its citizens to postsecondary opportunities is unnecessarily limited and the quality of instructional,

research, and service programs is reduced. And in today's competition to land new manufacturing plants and industries, access to education is critical.

Problems are particularly acute at community colleges and regional universities located in the state's fast-growing urban areas, and at the state's two comprehensive universities, which operate many of the state's oldest physical plants. The entire state system faces a crisis of deferred maintenance; most of the buildings were constructed during the 1960s and 1970s, an era which saw the development of a comprehensive system of community colleges and the attainment of university status by the regional colleges. Simple usage of the facilities, and the normally expected wear and tear of major equipment such as heating and air conditioning units (which can cost up to $500,000 per building to replace) roofing, and other maintenance deferred during the state's hard fiscal days of the 1980s require immediate attention and repair. This bolsters justification for the two-pronged approach proposed in this report, to deal with the immediate deferred maintenance crisis as well as to provide for a longer-term permanent solution.

This study calls for the passage of the $360,870,575 million bond issue proposed by Governor Walters and passed by the 1992 Oklahoma Legislature, of which $258,038,075 is allocated for the critical needs of higher education.

This study further recommends a bond issue of $685 million to be funded within the next three years, through the device of a permanent Gross Receipts Tax on Homeowner Electrical Usage of .00335 cents per kilowatt hour, which would cost the average Oklahoma homeowner about $4.52 per month, or $54.19 per year in additional taxes. It is estimated that the Gross Receipts Tax on Electrical Usage would produce a highly predictable revenue stream of between $65 and $80 million per year that would allow for bonding of $685 million to be repaid over a 20 year period.

Finally, this study recommends that policymakers consider the creation of an Oklahoma Higher Education Facilities Authority (Authority), to administer the receipts of the Gross Receipts Tax on Utilities, develop and approve a coordinated capital master plan for the state's public higher education physical infrastructure, and once financing priorities are determined, to then appropriate such sums as needed to the

governing boards of the specific institution of higher education for actual expenditure.

By balancing these sources with the rather minimal Section 13 funding source that currently exists, Oklahoma will have met immediate critical needs while it develops a long term solution that will stand the test of time. It is akin to construction of a building: one-time funding will be needed to fix the crumbling exoskeleton caused by a quarter-century of neglected deferred maintenance, and additional funds from the creation of the Gross Receipts Tax on Utilities will lift up and level the foundation. With continued legislative support and continued emphasis on access and quality, the Oklahoma system of higher education will be properly positioned to lead the state's economic development into the next century.

KEY FINDINGS OF THIS STUDY REVEAL:

*Oklahoma's public system of higher education does not now have a long-term plan in place to address physical infrastructure (or capital) needs.

*In the period since the close of World War II, **bond issues have been the primary method employed** to support the development of Oklahoma's public higher education physical infrastructure. During this period six bond issues were approved (1949, 1955, 1961, 1963, 1965, and 1968), which when adjusted to current 1991 dollars provided $749.4 million in funding. **The last bond issue was approved in 1968.** All other funds for higher education facilities during the period were derived from direct state appropriations, Section 13 funds, private and federal grants.

*There is an immediate crisis caused by a quarter century of deferred maintenance. These critical deferred maintenance needs include but are not limited to fixing aging heating and air conditioning systems, roofs, and building exoskeleton, as well as dramatically improving energy efficiency, increased usage of Oklahoma natural gas.

*The lack of funding since 1968 has impeded the growth and development of Oklahoma's publicly-controlled network of two year colleges, and has in fact served to limit access to thousands of students, especially in the urban areas of Tulsa, and Oklahoma City.

*The $258,038,075 in physical infrastructure improvements proposed by the bond issue to be voted on in November, 1992, is not enough by itself to meet the deferred maintenance crisis, and <u>will meet less than one-third of the stated capital needs.</u> For this reason, a two-pronged bond issue is proposed. The problem should be fixed, not patched.

*The $821 million state share of the $1.14 billion total of capital and deferred maintenance needs approved by the Oklahoma State Regents for Higher Education in January, 1991 significantly understates total dollars needed from the State of Oklahoma. A bond issue of $685 million will be needed to generate the state's $630 million share, due to the need for a sinking fund to provide debt service on the bonds. This is in addition to the bond issue under current consideration.

*The vast majority of facilities at the state's two comprehensive universities were constructed prior to 1975, and much of their physical plants were constructed prior to 1950. The challenge Oklahoma State University and the University of Oklahoma face is to <u>significantly upgrade the quality of space</u> so they can perform their missions at a nationally competitive level.

KEY FINDINGS (continued):

*There is a severe space crisis existing at Oklahoma's publicly controlled four year institutions, especially for those such as the University of Central Oklahoma, which serve students in the state's high growth urban areas.

*Due to prudent management, the balanced budget constitutional amendment, the existence of a rainy day fund, the relatively lower tax burden of Oklahoma citizens compared to those living in other states, and the overall conservative budgeting tradition and processes now in place, the capacity exists to support a large bond issue, if a properly dedicated revenue stream is identified.

KEY RECOMMENDATIONS OF THE STUDY INCLUDE:

*According to data from the State Regents for Higher Education, six times since World War II, the people of Oklahoma were asked and authorized indebtedness in the form of bond issues. **The people of Oklahoma deserve the opportunity to vote on a statewide ballot referendum that would provide a more permanent and secure financial plan to support the physical infrastructure of their publicly-controlled institutions of higher education,** as they have six other times since World War II.

*There is every reason to think that if the people of Oklahoma fully understand the issues at stake that they will support a bond package that will allow the state's higher education system to become and remain a national center of excellence.

*An Oklahoma Higher Education Facilities Authority should be created to develop a long-term capital plan, coordinate the expenditure of any new funds appropriated for capital needs, and to appropriate to the governing boards funds derived from any new capital bond issues that might be approved by the Governor, Legislature, and people of Oklahoma.

*Beyond support of the immediate proposal at hand, policymakers should consider a dedicated, permanent revenue stream to fund new construction, renovation, and rehabilitation of Oklahoma's public higher education physical infrastructure is desperately needed. Existence of a dedicated, predictable revenue stream will foster a favorable rating from the bond credit rating services that will allow Oklahoma to obtain cheaply the capital needed to improve its higher education physical infrastructure.

*A Gross Receipts Tax on Homeowner Electrical Usage appears to be one of the best, most fair, and most predictable dedicated revenue stream that will generate sufficient funds needed to finance the needed $914 million bond issue.

*To maximize the economic development benefits of the bond issue for Oklahoma, the expenditures related to bond financing, materials purchasing, and construction, a strong preference should be given to locally based Oklahoma firms. To provide a needed "shot in the arm" for Oklahoma's sagging construction and related industries, all aspects of the bond proposal should be kept within the state.

KEY RECOMMENDATIONS OF THE STUDY (continued):

*To maximize the economic development benefits of the bond issue, it is further recommended that the Oklahoma State Regents for Higher Education be directed to develop plans for the expenditure of at least 20% of the first bond issue to initiate construction projects during the summer, 1993 construction season. This will enable the plan to maximize the immediate and positive job creating impact on the State Oklahoma, as noted in the previous recommendation. It is estimated that 12.5 jobs are created for each $1,000,000 in state or federal (construction) spending. With a multiplier effect of 3, the initial benefit of the bond issue that is under consideration, is the creation of 2,625 jobs immediately. **It is estimated that the proposal under consideration will create a total of 12,960 jobs.** The second bond issue of $685 million would create an additional 25,000 jobs.

*A Statewide Task Force to Promote Oklahoma the Use of Natural Gas in Public Higher Education Facilities should be created. This 13 member task force should have at its disposal external consultants, and should include significant private sector representation, but should have at least majority of its members comprised are physical plant administrators at Oklahoma public institutions of higher education. It is also recommended that all three tiers of Oklahoma's public higher education be represented. The purpose of the Task Force will be to recommend policies to provide for the most efficient and effective expenditure of funds under the bond issue to promote Oklahoma-based natural gas usage in the state's public higher education system, and to end the wasteful practice of importing energy from other states and unstable foreign sources.

*The Oklahoma State Regents for Higher Education' existing list of six major priorities for expending funds for facilities assumes that no long term capital plan for addressing public higher education physical infrastructure is in place. Instead, the priorities currently in place assume an extremely limited amount funding to be allocated on an annual basis, and emphasize the improvement of existing space (patching), and deployment of limited resources now available to match available federal and private funds (attracting). With a long-term capital plan in place, this prioritization listing should be modified to reflect the challenge of improving the quality of space, and to recognize changed educational functions. **It is likely better academically and cheaper cost-wise to tear down and reconstruct a number of the existing facilities, as opposed to locking the governing boards into renovating and rehabilitating each and every facility (this is especially true for the state's two research universities).**

KEY RECOMMENDATIONS OF THE STUDY (continued):

*A significant OSRHE funding priority should be to provide the equipment needed to allow the teacher preparation programs at Oklahoma's colleges of education **to deliver programs that prepare teachers with information age skills.** This teaching and learning equipment certainly includes computer assisted interactive video laboratories, software, science and mathematics education equipment, and appropriate audio visual support. **Improving the physical infrastructure at Oklahoma's colleges of education is a logical next step to build upon the House Bill 1017 reforms already enacted;** it is directly linked to the state's economic development in that teachers who can provide better basic skills training will in turn provide a better trained workforce for business and industry. This is consistent with the report The Bottom Line: Basic Skills In The Workplace (U.S. Dep't of Education), Building a Quality Workforce (U.S. Dep'ts of Education and Labor), What Work Requires of Schools. A SCANS Report for America 2000 and School-to-Work Connections: Formulas for Success (U.S. Dep't of Labor).

*A significant OSRHE funding priority should be to provide computer interactive video facilities for the large numbers of developmentally deficient, older and returning adult students who now are entering Oklahoma's public institutions of higher education, particularly at the community and junior colleges.

*All construction should take campus aesthetics into account. New facilities constructed or upgraded today will likely be around in the Year 2040, decades after any bond issue is retired. This is one of the best reasons for local governing board input and authority over deployment of facilities funding.

***The year 1992 will likely be the best single year in next thirty for the State of Oklahoma to develop and pass a significant bond issue,** for four major reasons: (1) the opportunity it would provide for higher education to lead the state in diversifying its economic base, long a goal of private and public policymakers; (2) the positive message it would send to the nation that **Oklahoma invests in its future** would help higher education attract targeted telecommunications, agricultural, and aviation, and manufacturing industries, and retain and expand existing key industries; (3) access to capital bond markets is excellent; present interest rates are the lowest they have been in a generation; and (4) a total bond issue of $914 million, the State of Oklahoma's share under the OSRHE Master Plan, would provide a shot in the arm to the economy and to the thousands of Oklahoma construction workers that would be employed for an extended period of time, at the precise time the nation finds itself in recession. These workers will add to Oklahoma's tax base as opposed to acting as a drain on it.

OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE--ANALYSIS AND DIRECTIONS

> The capital needs of the state demand attention in both the short-term, and in long-term strategy. There are pressing demands at this moment in leaking roofs, failed mechanical systems, and inadequate equipment. There are immediate needs in additional seed funding for important economic development projects. But if a capital strategy is limited to only the most immediate pressing needs--then there is, in fact no strategy. Oklahoma cannot expect to meet its goals for growth if capital planning at the state government level continues on an incremental, year-by-year basis.
>
> Fiscal Year 1992 Executive Budget/Capital Budget
> Submitted by Governor David Walters
> to the First Session, Forty-Third
> Oklahoma Legislature, February 4, 1991

Introduction

As Governor Walters correctly stated, **the State of Oklahoma does not possess a long term plan to provide for the proper maintenance, rehabilitation, renovation, and maintenance of its public higher education physical infrastructure.** During the period from 1945 to 1980, the top priority for state policymakers was construction of needed and new higher education facilities, to provide meaningful access to postsecondary educational opportunities. Bond issues were the primary method employed during this period, and six bond issues were approved between 1949 and 1968, however these funds were almost exclusively used for the construction of new facilities or to upgrade or otherwise improve the existing physical plants at public colleges and universities, not to deal with deferred maintenance. The last bond issue to support higher education's physical infrastructure was approved in 1968. What meager funds that exist at present come in the form of Section 13 funds under the Oklahoma Constitution, and additional small funds from other sources that provide emergency aid of a negligible nature.

Today there exists today a crisis in deferred maintenance, and behind it hundreds

of millions of dollars of critical needs for facilities renovation, rehabilitation, and new construction. Unlike the decade of the 1960s, the State of Oklahoma cannot look to Washington, D.C., for matching funds to alleviate the crisis (the variability of federal funds acted as an inducement for Oklahoma and other states to pass bond issues. Given the preoccupation of the federal government with deficit reduction and the paucity of expected federal aid during the next decade, the State itself must act to move forward. Additionally, given the State of Oklahoma's extremely low debt service as a state, the state possesses the needed capacity to support a bond issue of the size needed to deal with the problem in a meaningful way. The choice is simple: will Oklahoma move ahead or fall further behind? Will a band-aid approach be applied, or will the state instead place funding for its public higher education physical infrastructure on a sound long-term actuarial basis? These are the choices now before the public and private sector leadership of the State. The seven key recommendations of this study are described below, and are followed by a more comprehensive narrative.

DETAILED KEY FINDINGS OF THE STUDY

1. The $258,038,075 proposed for higher education is a good start, but only a start.

The original proposal that Gov. Walter's submitted to the Legislature in 1991 was as follows:

1) Higher Education.....$225.00 million
2) Elementary and Secondary Education.....50.00
3) Vocational and Technical Education.....20.85
4) Television Authority..... 4.15

$ 300.00 million

This bond issue would have been funded by existing revenue streams that had reverted to the General Revenue Fund following the paying off of the HERO issue of 1968, had it been approved by the Legislature. The current bond issue being considered is a total of $360,870,575, with $258,038,075 going towards higher

education. The changes represent a natural flow of political give and take between the Executive and Legislative branch.

To not deal with the larger public policy issue, however, would be tragic. And that issue is whether the current environment will allow a permanent, dedicated revenue source as a base for dealing with the maintenance and improvement of its public higher education physical infrastructure. The $258 million in funding, while helpful, would only address well under a fourth of the $1.1 billion problem, according to Oklahoma State Regents for Higher Education data. The people of Oklahoma should not accept a band-aid solution: it has been nearly a quarter-century since an Oklahoma Legislature and Governor last addressed the problem; whatever is proposed should be made within the context of the next twenty-five years, if past experience is any indication. Thus, the proposal before the voters this fall is a start-but only a start.

2. A deferred maintenance crisis now exists in Oklahoma's higher education facilities.

Most of the state's higher education physical infrastructure was constructed as a result of the four bond issues passed during the decade of the 1960s. These bond issues allowed the state to meet the need of thousands of adult students, and resulted in the construction of a network of community and junior colleges throughout the state that served 220,719 students in the 1988-1989 academic year. The student clientele served by these institutions has changed dramatically during the past twenty years, with great increases in the number of older, female, and single parent students enrolled. Closely mirroring national data trends, Oklahoma during the past decade has seen significant growth in its enrollments at two-year colleges as well as urban-based, access-oriented four-year institutions.

For many students these institutions offer the only viable postsecondary educational option. The capacity of the state's two year institutions to provide the first two years of college is negatively impacted by the lack of a consistent revenue stream for buildings and equipment. Nearly all of the several hundred buildings that now

house Oklahoma's public two year colleges were constructed during the 1970s; in the early 1990's the twenty year useable life of the heating and air conditioning systems in each of these buildings has nearly expired. This means that the replacement costs will hit system wide at the same time. This bolsters justification for the two-pronged approach proposed in this report, to deal with the immediate deferred maintenance crisis as well as to provide for a longer-term permanent solution.

3. Oklahoma's physical infrastructure crisis is part of a larger national problem.

Two of the nation's leading higher education facilities experts, Sean C. Rush and Sandra L. Johnson, concluded that our nation's institutions are in fact, "ticking time bombs," (Association of Physical Plant Administrators, National Association of College and University Business Officers, 1988 12). If efforts are not set forth to encourage a better sense of guidance to our nation's higher education facilities deferred maintenance problems, they argue, the educational demands of the 21st century will be unfulfilled. Colleges and universities have been adjusting and belt-tightening since the early 1970's. Since that time, costs of contracted services, supplies and equipment have increased 164 percent and utilities have increased 381 percent (National Center of Statistics, Financial Statistics of Institutions of Higher Education, FY 1981). Therefore, managing restricted budgets makes our educational institutions victims of their own success (i.e., having more students wanting classes, with inadequate facilities in which to offer such classes). Table 1, below, documents the scope of this national problem.

Many institutions are confronted with mandatory compliance of facilities with federal regulations such as asbestos, medical waste, raw materials disposal, etc.; however, little if any compensation is available to carry out the mandates. One fact that cannot be ignored is that for every $1 spent on physical plant reinvestment at our nation's campuses, $3.60 are being deferred to the future (NACUBO, Rush, 15). This has resulted in a capital reinvestment backlog of $60 to $70 billion, including an urgent need for $20 billion to correct the most severe conditions (NACUBO/Meyerson & Mitchell 1989, p. 17).

TABLE 1

ESTIMATES OF CAPITAL RENEWAL AND REPLACEMENT FOR U.S. INSTITUTIONS OF HIGHER EDUCATION

Level:	University	4-year college	2-year college
Building Replacement value	$352,000,000	$42,260,000	$15,310,000
Gross Square Feet	4,760,000	584,000	214,000
Age(as percent of total)dating to 1950	36.2	28.6	17.3
1951-65	34.5	34.5	25.4
1966-74	29.0	36.6	56.9
Condition (% of total) Satisfactory	80	85	89
Remodeling A	10	10	6
Remodeling B	10	5	5
Needs (000,000's) Remodeling A	$35.2	$4.2	$0.92
Remodeling B	$35.2	$2.1	$0.77

Source: National Center for Statistics, Inventory of Facilities in Institutions of Higher Education, Fall 1974.

Notes: Condition are HEGIS categories of (1) Satisfactory; (2) Remodeling A=Cost of remodeling is greater than 25% but not greater than 50% of replacement value; and (3) Remodeling B=Cost of remodeling is greater than 50% of replacement cost, demolition, or termination.

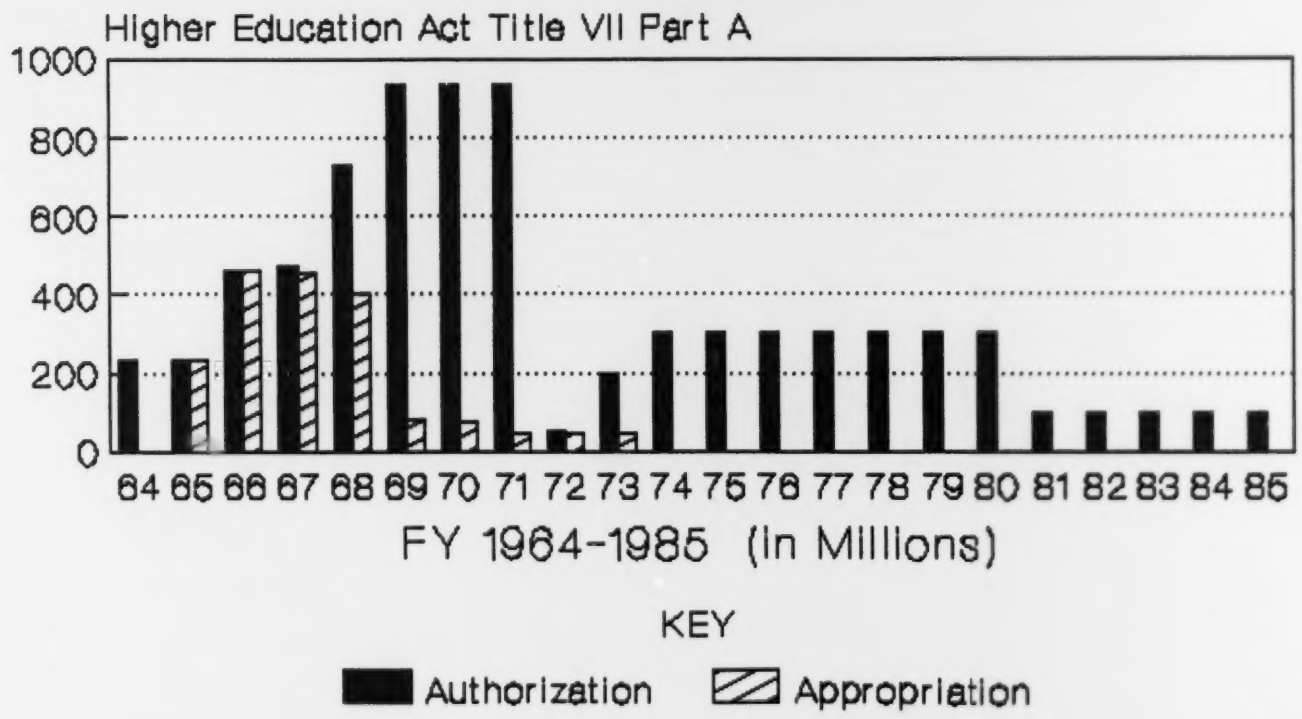
The data tend to show that the larger and faster institutions and systems of higher education grow, the smaller amount of regular, recurring funds will be budgeted for the repair and renovation of existing buildings and facilities. Making reports of "balanced budgets" can be highly deceptive. The reallocation of maintenance and repair funds for the operation of the general budget over time threatens the fiscal integrity of the institution and system. This is very likely is where Oklahoma is today. Given the paucity of institutional and state dollars for higher education facilities funding, and the historically important role of the federal government played prior to the early 1970's, it would appear that federal involvement to rebuild academe's crumbling physical infrastructure would be an imperative. However, the federal government is itself strapped for cash, as President George Bush noted in his inaugural address in 1989 when he said "We have more will than we have wallet, but it is will that we need."

4. During the next decade, due to predictably low levels of federal assistance, the OSRHE's estimate of $300 million of funds to be obtained from "other sources" is too high.

Since the early 1970s, the role of the federal government in funding higher education facilities has been minimal. Tables 2 and 3, which follow this page, present the authorizations and appropriations history of the federal government's role in funding undergraduate and graduate academic facilities respectively under Title VII, Parts A and B of the Federal Higher Education Act. The last major infusion of federal dollars for science related facilities occurred during the twelve years following passage of the National Defense Education Act (NDEA). The NDEA itself represented a response by President Eisenhower and the Congress to the launching of the Sputnik satellite by the Soviet Union. Building upon NDEA, President John F. Kennedy in 1961 proposed a bill passed just two years later to provide student financial aid and physical plant construction funding for engineering, science and library facilities. The Kennedy Administration's proposals were incorporated into the 1963 Higher Education Facilities Act (P.L 88-204) and its greatly expanded successor, Title VII of the Higher Education Act of 1965. With the passage of the Higher Education Act of 1965, the

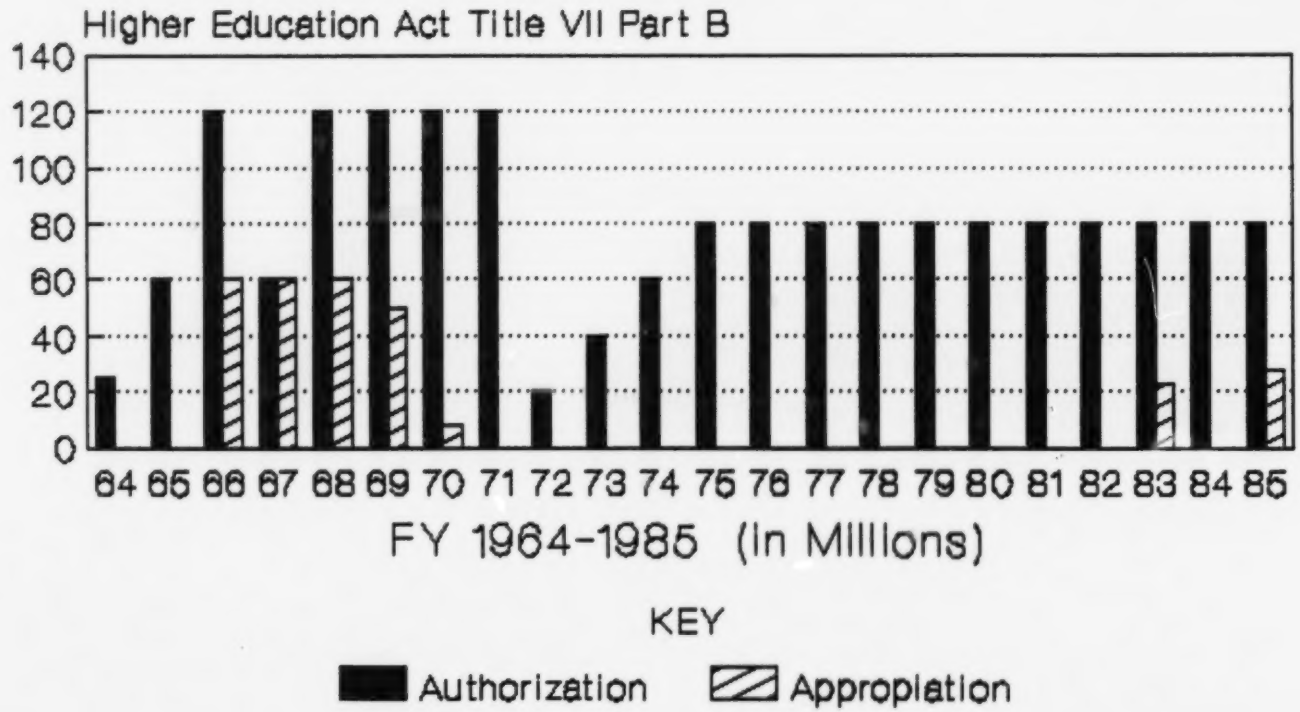
Table 2

Federal Grants-Undergraduate Facilities
Authorization & Appropriation History



Source: U.S. Congressional Research 1985

Table 3:
Federal Grants-Graduate Facilities
Authorization & Appropriation History



Source: U.S. Cong. Res. Service, 1985

federal government's role was expanded beyond defense to provide access to the mushrooming "baby boom" generation entering college, as well as to improve the quality of facilities at institutions serving traditionally disadvantaged students (historically black colleges and universities as well as community colleges and urban four year institutions). Tables 2 and 3 taken together show that under the Higher Education Act of 1965 as amended, $1.89 billion was appropriated for higher education facilities through 1973.

The history of higher education facilities funding within the State of Oklahoma clearly underscores the critical role that federal matching funds played in creating incentives for states to expand and build their higher education systems. Table 4, "Authorized Indebtedness Approved by a Vote of the People of Oklahoma to Support Oklahoma's Public Higher Education Physical Infrastructure in the Form of Bond Issues, 1941 - Present," shows that four bond issues to support Oklahoma's public higher physical infrastructure during the 1960s were passed to secure the state's "fair share" of available federal matching dollars (much like federal highway funds). From 1974 through 1985, however, there were no funds appropriated for higher education facilities. Documents from the OSRHE show that the 1968 HERO bond issue was in part based upon a federal match which did not occur. For this reason, former OSRHE Chancellor E.T. Dunlap approached then Governor David Boren for support for a bond issue in 1974. Dunlap decided that without the support of the Governor a bond issue was not achievable. When Governor Boren declined, no program was put forward.

There can be no question that the primary responsibility for a sound higher education physical infrastructure in the 1990s belongs to the forward-looking states. The federal deficit in 1992 was in excess of $4 trillion, a figure so mammoth in proportion that it is difficult for policymakers and the general public to comprehend:

> Now the average citizen can't relate to a billion or a trillion. A million dollars in thousand-dollar bills is a stack of thousand-dollar bills, four inches high. A billion dollars in thousand-dollar bills is 300 feet high. A trillion dollars in thousand-dollar bills extends from the top of (this) table to 63 miles out of space.
>
> --H. Ross Perot, interviewed on CNN's "Inside Business," January 5, 1992.

TABLE 4

AUTHORIZED INDEBTEDNESS APPROVED BY A VOTE OF THE PEOPLE OF OKLAHOMA TO SUPPORT OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE IN THE FORM OF BOND ISSUES, 1941 TO PRESENT (in **millions** of dollars)

State Question	Year Authorized	Total Initial $ Bonded	$ for Higher Education	% for HIED of Total Issue	Adjusted 1991 Dollars
348	1949	$ 36.0	$ 16.0	(44.4)	$ 91.5
363	1955	15.0	13.75	(91.6)	69.9
393	1961	30.5	30.5	(100.0)	138.8
411	1963	7.0	7.0	(100.0)	31.2
433	1965	54.7	38.5	(70.4)	156.5
463	1968	99.8	67.12	(67.3)	261.7
TOTAL, 1941-1991:		**$ 243.0**	**$ 172.87**	**(71.1%)**	**$ 749.4**

NOTES

1. Values in the right hand column are figured using the following formula: the current Consumer Price Index (CPI) is divided by the CPI of the given year of the State Question, and then multiply that value by the value of the bond issue in the year it was approved.
2. State Question 463, approved in 1968, is commonly referred to as the "HERO" Bond Issue (Health and Education for a Richer Oklahoma). This was the last bond issue submitted to a vote of the people to support higher education facilities.
3. The total amount of facilities funding was much greater than $760.67 million, due to federal matching dollars from the College Facilities Act of 1963, and Title VII of the Higher Education Act of 1965.

SOURCES:

1. State Building Bond Funds Utilized in the Capital Improvements Program for the Oklahoma State System of Higher Education, Bond Issues of 1961, 1963, 1965, 1968. A report submitted to the Special Committee on Capital Needs of the Oklahoma State Legislative Council, prepared by the Oklahoma State Regents for Higher Education: August, 1972.
2. Physical Facilities for Higher Education in Oklahoma--A Self-Study of Higher Education in Oklahoma (Report Number 5). Prepared by Charles R. Walker and John J. Coffelt; Oklahoma State Regents for Higher Education: December, 1964.

Efforts to build discipline into the federal spending process have failed, as successive Presidents and Congresses since 1980 did not make the accommodations and compromises needed to balance domestic needs, national defense, and taxation policy on a pay-as-you-go basis. Instead a massive tax cut was approved in 1981 financed through deficit spending; and in agreeing to disagree, the federal government - which unlike Oklahoma does not have a balanced budget amendment in its constitution - continued to amass ever larger deficits each year. The failure of the hard-fought 1990 compromise between President Bush and the Congress to halt the growth of the deficit was evidenced by the all time deficit record of $400 billion plus in the 1992 fiscal year. From these facts, it can be assumed that federal funds for a host of programs, including matching funds for educational and physical infrastructure needs, will be minimal. And, for this reason, it is highly unlikely that Oklahoma will be able to attract the $300 million from other than state resources that is built into the Oklahoma State Regents for Higher Education Master Plan. Thus, a major recommendation resulting from this study is that the $300 million figure is unrealistically high, and that if the State of Oklahoma is to move forward, **it will need to do on its own**, forging ahead and not waiting for the federal government to act.

5. It will be cheaper to tear down and rebuild rather than renovate many facilities.

There are four central challenges to Oklahoma's higher education physical infrastructure: first, to address the crisis in deferred maintenance to preserve the base of the existing physical infrastructure; second, to provide immediate additional facilities capacity in Oklahoma's high growth urban areas; third, to provide facilities in areas of critical educational need; and fourth, to effectuate a significant across-the-board increase in the quality of existing physical plants.

Not every facility at every institution should be rehabilitated or renovated, however. It is strongly recommended that the Oklahoma State Regents for Higher Education's standards be revised so as to not lock institutional governing boards into making improvements in a situation where not every existing facility should be

rehabilitated and renovated. State Regents guidelines which presently exist should be amended to promote funding to improve the quality of teacher education programs building upon H.B.1017 reforms, and should not lock institutions into rehabilitating facilities that have no historical value and are inappropriate academically (this is discussed in detail in Part III of the Technical Report).

6. Elementary and secondary facilities and other state facilities need attention.

While this study focused solely on the infrastructure needs of Oklahoma public higher education, this is not to suggest that higher education's capital needs are the only needs the state should address. There is a clear and compelling need for increased funding for Oklahoma's elementary and secondary public education physical infrastructure. Attention should be paid by the Governor and Legislature to provide modern, up-to-date teaching and learning technologies for every school building in the state. This study strongly endorses the concept proposed by Governor Walters in his 1991 Capital Budget plan to fund computer assisted interactive video laboratories for Oklahoma's public schools. Oklahoma public policymakers should insure that each and every school in the state is computerized so that students can gain information age skills they need to **perform well** in the modern workplace, and thus support the state's economic development (this provides strong justification for expending funds to incorporate the latest teaching and learning strategies into Oklahoma's teacher preparation programs, or the funds spent locally will be wasted). The strong work ethic of Oklahoma's workforce is well-known; it is time to build upon it, to insure Oklahoma business that the workforce can perform at world class levels of efficiency and effectiveness. The Legislature should build upon the enlightened proposal of Governor Walters in this area, as well as its own longstanding commitment to quality public education evidenced by House Bill 1017. Additionally, if the longer school year suggested by a host of national education reform reports and HB1017 is to be actualized, the public schools of Oklahoma will need to move to operating on a nearly year-round basis. Additionally, the last major infusion of funds for non-transportation related facilities also came during the 1960s, it is time to address this issue directly as

part of an overall capital development strategy. This is why a larger bond issue should follow approval of this more immediate issue.

7. Higher education needs a facilities funding formula that is structurally sound.

A comparison between the level of capital support of two institutions, both of which are located in the same southwestern Oklahoma county, demonstrates well the structural weaknesses inherent in Oklahoma's current higher education facilities funding formula, compared to that of its sister Vocational-Technical School System. Cameron University and Comanche County Vo-Tech district are both located in Lawton, Oklahoma. In 1991, Comanche County Vo-Tech served 1,100 students, while nearly 7,000 students were served at Cameron University, which provides programs through the master's degree. In that same year, Comanche County Vo-Tech received nearly $2 million in funds for equipment and capital development, as compared to the meager $450,000 in Section 13 offset funding for Cameron University. This equates to $1,800 per student for students at Comanche Vo-Tech, compared to only $64 for students attending Cameron University, the state's fifth largest senior institution of higher education. Clearly, one reason Oklahoma possesses one of the leading vocational technical education systems in America is the funding structure now in place for capital needs, especially given the relatively high expense of providing current equipment on which to train. The necessary investment in equipment and facilities for the state's vo-tech schools has not been made for higher education.

Table 5, "Distribution of Endowment Earnings Under Section 13 of the Morrill Act by the Commissioners of the Land Office of the State of Oklahoma for the Year Ended June 30, 1991," shows the one consistent source of funding to support Oklahoma's public higher education physical infrastructure. Created as a result of the Morrill Act, as well as from the proceeds of the 13th section of the each township tract of land prior to the various "land runs" of the late 1800s, the endowment has had proceeds every year, no matter how bad the state's financial situation happened to be. Each of the 13 institutions that receive "Section 13" funds was created prior to statehood in 1907; thus the remainder of the public institutions--including most of the two-year

TABLE 5
DISTRIBUTION OF ENDOWMENT EARNINGS UNDER SECTION 13 OF THE MORRILL ACT BY THE COMMISSIONERS OF THE LAND OFFICE OF THE STATE OF OKLAHOMA FOR THE YEAR ENDED JUNE 30, 1991

Institution	Amount of Funding	FTE Enrollment	FTE Per Student
University of Oklahoma	$ 4,155,003	20,559	$ 202
Oklahoma State University	3,539,631	22,590	157
Langston University	1,046,092	2,173	481
Northern Oklahoma College	1,226,083	1,425	860
Southeastern OK State Univ.	485,198	3,503	139
University of Central Okla.	485,198	10,540	46
East Central State Univ.	485,198	3,879	125
Northeastern OK State Univ.	485,198	7,200	67
Northwestern OK State Univ.	485,198	1,644	295
Southwestern OK State Univ.	485,198	4,309	113
Cameron University	485,198	4,415	110
Oklahoma Panhandle State Univ.	485,198	1,061	457
Okla. Univ. of Science & Arts	483,198	1,306	372
TOTAL:	$14,333,591	84,604	$ 169

colleges--have received no funding. In recent years, recognizing the inequity, the Legislature funded what has come to be known as "Section 13 Offset" funds, to reduce the inequity in the funding formula, such as it is. What is important to note here, however, is that the Section 13 funds, while important to the institutions who receive them, do not begin to come close to meeting the repair and replacement needs. Bond issues still remain the major funding mechanism to support the refurbishing and maintenance of Oklahoma's public higher education physical infrastructure. Clearly, the case is strong for providing a permanent stream of revenue that can serve as a durable, predictable, and fixed base of support for Oklahoma's public higher education physical infrastructure, as now exists in the brilliantly conceived structure in the Oklahoma State Vocational Technical Education system, as developed by its founder, Dr. Francis Tuttle, Oklahoma's first modern-era State Director of Vocational Technical Education.

KEY RECOMMENDATIONS OF THE STUDY

1. Vote of the people.

An important recommendation of this study is that the people of Oklahoma should have the opportunity to approve any long-term solution to Oklahoma's decaying physical infrastructure crisis. Bond issues have been the primary funding vehicle employed by the State of Oklahoma to support its higher education physical infrastructure. There have been six major bond issues since World War II (in 1949, 1955, 1961, 1963, 1965, and 1968, as shown in Table 4, on page 18). It is noteworthy that the total dollar value of these six bond issues, when adjusted for inflation into 1991 dollars, provided nearly $760 million in funding for public higher education facilities. **There is no reason for those who support higher education to fear the considered judgment of the people of Oklahoma on a bond issue, especially when passage is so critical to the state's future economic development.** Editorial writers and voters in another era accepted this same argument: in 1968 all of the state's leading newspapers strongly endorsed the HERO (Higher Education for a Richer Oklahoma) bond issue, and the voters passed the HERO issue by an overwhelming 3.5 to 1 margin. Thus, this study supports the philosophical viewpoint of Governor David Walters, who has argued that a bond issue for higher education facilities should be submitted to a vote of the people.

2. The November, 1992 bond issue deserves support.

There is a critical need for the people of Oklahoma to address the deferred maintenance, equipment upgrading, renovation, and critical needs facilities new construction at its public institutions of higher education. The proposed higher education bond issue, as noted in Table 6, "Summary Distribution of Funds to Support Oklahoma's Public Higher Education Physical Infrastructure Under Proposed 1992 State Capital Bond Program, By Tier," shows how the $258 million would be divided among the four major institutional classifications used by the Oklahoma State Regents for Higher Education. The critical needs that will be addressed include but are not

TABLE 6:
SUMMARY DISTRIBUTION OF FUNDS TO SUPPORT OKLAHOMA'S PUBLIC HIGHER PHYSICAL INFRASTRUCTURE UNDER PROPOSED 1992 STATE CAPITAL BOND PROGRAM, BY TIER
(to be voted in November, 1992)

	Amount	% of Total for Higher Education
Comprehensive Universities:	$ 110,669,400	42.9
Four Year Institutions:	65,655,282	25.4
Two Year Institutions:	67,040,524	26.0
State Regents' HIED Centers:	19,452,369	5.7
TOTAL, Higher Education	$ 258,038,075	100.0

Note: This includes only funds for higher education. The total bond issue is for $360,870,575; the public system of higher education in Oklahoma will receive $258,038,075, or about 72% of the total bond issue.

limited to achieving full access under the Americans with Disabilities Act; addressing "big ticket" maintenance needs which have been deferred, such as heating, ventilation and air conditioning units; specific research initiatives tied to economic development; and facilities designed to promote access at Oklahoma's overcrowded urban-based two and four institutions. Table 7, "Detailed Distribution of Funds to Support Oklahoma's Public Higher Education Physical Infrastructure Under State Capital Bond Program," presents a detailed analysis, institution by institution, of where the funds would go if the bond issue is approved by the voters of Oklahoma in the statewide referendum to be decided in November, 1992.

TABLE 7:
DETAILED DISTRIBUTION OF FUNDS TO SUPPORT
OKLAHOMA'S PUBLIC HIGHER EDUCATION PHYSICAL INFRASTRUCTURE
UNDER STATE CAPITAL BOND PROGRAM
(to be voted in November, 1992)

Institution	Project (millions) Project	Type	Funding of Dollars
Univ. of Oklahoma	Music Center	NC+R	6,246,158
Univ. of Oklahoma	Physical Sciences	R	2,712,000
Univ. of Oklahoma	Classroom/Lab	R+E	1,840,000
Univ. of Oklahoma	Whitehand Hall	R	2,370,000
Univ. of Oklahoma	Engineering Lab	R	1,150,000
Univ. of Oklahoma	Engineering Ren-Phase I	R	1,800,000
Univ. of Oklahoma	Computing Equip-Phase I	E	4,000,000
Univ. of Oklahoma	Critical Health, Safety & Access	R	1,643,000
Univ. of Oklahoma	Adams Hall	R	969,842
Univ. of Oklahoma	Natural History Museum	NC	15,000,000
	Main Campus Sub-Total:		32,011,000
Univ. of Oklahoma-HSC	Family Medicine	NC	4,500,000
Univ. of Oklahoma-HSC	Biomedical Research	NC	17,900,000
OU Tulsa Medical Cntr	Debt Retirement	NC	6,600,000
	OU Health Sci Ctr Sub-Total:		29,000,000
University of Oklahoma, Sub-Total:			61,011,000
Oklahoma State Univ.	Advanced Tech Center	NC	12,500,000
Oklahoma State Univ.	College of Education	R	9,828,000
Oklahoma State Univ.	Ag. Experiment Station	R	4,000,000
Oklahoma State Univ.	Veterinary Medicine Bld	R	2,500,000
Oklahoma State Univ.	Boren Vet.Med. Hospital	R	1,300,000
Oklahoma State Univ.	Animal Disease Diag. Lab	R	505,000
Oklahoma State Univ.	Animal Care Facilities	R	770,000
Oklahoma State Univ.	Food Processing Research	NC	14,000,000
	Main Campus Sub-Total:		45,908,000
OSU-Osteopathic Schl	Health Clinic-Phase II	NC	1,500,000
OSU-Osteopathic Schl	Library, Telecom Center	NC	2,250,400
	Osteopathic Sub-Total: 3,750,400		
Oklahoma State University (excluding subbaccalaurate branch campuses), Sub-Total:			49,658,400
COMPREHENSIVE TIER INSTITUTIONS, SUB-TOTAL:			$ 110,669,400

TABLE 7 (CONTINUED)

FOUR-YEAR REGIONAL INSTITUTIONS:			
Univ. of Central OK	Gen Purpose Clsrm Bldg	NC	9,765,106
Univ. of Central OK	Howell Hall	R	2,000,580
Univ. of Central OK	Campus Networking	E	825,914
	Reduction in Support		-4,826,494
	Sub-Total:		7,765,106
East Central Univ.	Linschied Library Addt.	NC	4,617,200
East Central Univ.	Disabled Access	NC	416,000
East Central Univ.	Waste Building	NC	60,000
East Central Univ.	Science Hall-Phase I	R	360,800
East Central Univ.	Horace Mann Building	R	415,000
	Sub-Total:		5,869,000
Northeastern State U.	Seminary Hall	R	2,800,000
Northeastern State U.	Computing Tech'gy Bldg	NC	2,200,000
Northeastern State U.	Critical Equipment	R+E	758,400
Northeastern State U.	Library Building	R	855,000
Northeastern State U.	Hastings Hall	R	120,000
Northeastern State U.	Education Building	NC	1,435,000
Northeastern State U.	Theater Building	R	160,000
Northeastern State U.	Fine Arts Building	R	485,000
	Sub-Total:		8,813,400
Northwestern OKSU	Education Center	R	1,200,000
Northwestern OKSU	Vinson Hall	R	1,250,000
Northwestern OKSU	Jesse Dunn Hall	R	410,000
	Sub-Total:		2,860,000
Southeastern OKSU	Academic/Library Bldg	R	5,106,900
Southeastern OKSU	Academic/Library Bldg	E	480,000
	Sub-Total:		5,586,900
Southwestern OKSU	Disabled Access	R	629,000
Southwestern OKSU	Telecommunications	E	400,000
Southwestern OKSU	Classroom Building	NC	3,285,000
Southwestern OKSU	Interior Building Ren.	R	1,000,000
Southwestern OKSU	Addition to Admin. Bldg	NC	983,500
Southwestern OKSU-Sayre	Additional Support		+300,000
	Sub-Total:		6,597,500
Cameron (State) Univ.	Science Building-Phase I	NC	9,192,800
	Additional Support		+1,007,200
	Sub-Total:		10,200,000
Langston University	Jones & Moore Halls	R	1,500,000
Langston University	Sanford Hall-Phase III	R	617,400
Langston University	Business Ed-Phase I	NC	725,100
	Sub-Total:		2,842,500

FOUR-YEAR REGIONAL INSTITUTIONS, Continued

Panhandle State Univ.	Sewer Lagoon Restoration	R	155,000
Panhandle State Univ.	Interior Building Ren.	R	315,900
Panhandle State Univ.	Fiber Optics Telecomm.	E	150,000
Panhandle State Univ.	New Feed Mill	NC+E	280,000
Panhandle State Univ.	Facilities-Phase II	NC	781,000
Panhandle State Univ.	Farm House	NC	45,000
Panhandle State Univ.	Physical Plant	E	39,600
Panhandle State Univ.	Health Care Center	NC	250,000
	Sub-Total:		2,016,500
Univ. Science & Arts	Nash Library	R+E	902,084
Univ. Science & Arts	Gary Hall	R+E	805,776
Univ. Science & Arts	Austin Hall	R+E	708,740
Univ. Science & Arts	Davis Hall	R	687,776
	Sub-Total:	3,104,376	
FOUR-YEAR REGIONAL INSTITUTIONS, SUB-TOTAL:			**$ 65,655,282**

TWO-YEAR INSTITUTIONS

Carl Albert State Col	Business Building	NC	1,146,000
Carl Albert State Col	Disabled Access	R	40,000
Carl Albert State Col	Purchase of Property	NC	200,000
Carl Albert State Col	Hemphill Hall	R	462,000
Carl Albert State Col		E	348,000
Carl Albert State Col	Technical/Occupatnl Bldg	R	225,000
	Additional Support		+600,000
	Sub-Total:		3,021,000
Connors State College	Site Acquisitn-Muskogee	NC	95,000
Connors State College	Clssrm/Science-Muskogee	NC	1,915,000
Connors State College		E	45,100
	Sub-Total:	2,055,100	
Eastern OK State Col	Instructional	E	315,000
Eastern OK State Col	Library Learning Center	R	146,000
Eastern OK State Col	Instructional Tech	E	250,000
Eastern OK State Col	HVAC Replacement	R	430,000
Eastern OK State Col	Library Restoration	R	208,000
Eastern OK State Col	HVAC Piping Insulation	R	60,000
Eastern OK State Col	Disabled Access	R	225,000
Eastern OK State Col	Gunning Hall	R	136,500
Eastern OK State Col	Pratt Hall	R	108,000
Eastern OK State Col	Nursing Program	E	30,000
Eastern OK State Col	Water & Sewage Work	R	99,100
	Sub-Total:		2,007,600

TWO-YEAR INSTITUTIONS (continued)

Murray State College	Instructional Computing	E	300,000
Murray State College	Instruction-Faculty	E	400,000
Murray State College	Disabled Access	R	150,000
Murray State College	Academic Building Maint.	R	91,000
Murray State College	Academic Buildings I&II	R	75,000
Murray State College	Parking/Curbs/Sidewalks	R	100,000
Murray State College	Nursing Classroom Bldg	NC	575,000
Murray State College	Telecommunications	E	354,000
	Sub-Total:		2,045,000
Northeastern OK A&M	Shipley Hall	R	324,000
Northeastern OK A&M	Ables Hall HVAC Replace.	R	205,000
Northeastern OK A&M	Cunningham Hall	R	125,000
Northeastern OK A&M	Copen Hall	R	125,000
Northeastern OK A&M	Fine Arts Center	R	188,000
Northeastern OK A&M	Learning Resources Cntr	NC+R	578,666
Northeastern OK A&M	Instructional/Laboratory	E	484,734
Northeastern OK A&M	Telephone System Upgrade	E	40,000
Northeastern OK A&M	Copen/Cunningham/Shipley	R	340,000
	Sub-Total:		2,410,400
Northern Oklahoma Col	Wilkin Fine Arts Center	NC+R	1,206,000
Oklahoma City CommCol	Library	NC	6,152,100
OSU-Okmulgee	Instructional Equipment	E	1,418,000
OSU-Okmulgee	Noble Center-Phase III	NC	1,500,000
OSU-Okmulgee	Noble Center-Phase I	NC	700,000
	Additional Support:		+500,000
	OSU-Okmulgee, Sub-Total:		4,118,000
OSU-Oklahoma City	Learning Resources Ctr	NC+E	3,868,000
Redlands Comm College	Communications/Perf Arts	NC	1,150,000
Redlands Comm College	Nursing/Allied Hlth Bldg	NC	853,900
	Sub-Total:		2,003,900
Rogers State College	Health Sciences Building	NC	1,700,000
Rogers State College	Campuswide Telecom Netwk	E	200,000
Rogers State College	Thunderbird Library	R	850,100
Rogers State College	Instruct'nl Computer Ctr	E	285,000
Rogers State College	Classroom Building	R	2,000,000
	Sub-Total:		5,035,100
Rose State College	Communications Center	NC	6,158,600

TWO-YEAR INSTITUTIONS (continued)			
Seminole Junior Col	Tanner Hall-Science Wing	NC	1,072,114
Seminole Junior Col	Campus Drainage System	R	164,378
Seminole Junior Col	Disabled Access	R	49,000
Seminole Junior Col	Instructional & Computing	E	351,729
Seminole Junior Col	Boren Library Addition	NC	335,500
Seminole Junior Col	Repair West Parking Lot	R	153,203
Sub-Total:	2,125,924		
Tulsa Junior College	West Campus	NC	11,250,000
Tulsa Junior College	Instructional Support	E	946,050
Tulsa Junior College	Site Maintenance, Repair	R	596,955
Tulsa Junior Col-SE	Disabled Access/Elevator	R	100,000
Tulsa Junior Col-SE	Performing Arts Center	NC	5,885,840
Tulsa Junior Col-NE	Academic Expnsn-Phase IV	NC	3,329,972
Tulsa Junior Col-Metro	Fire Alarm System	R	224,983
	Sub-Total:		22,333,800
Western Oklahoma SC	Agriculture Clsrm Bldg	NC	1,500,000
Western Oklahoma SC	Library Building	NC	1,000,000
	Sub-Total:		2,500,000
TWO YEAR COLLEGES, SUB-TOTAL:			**$ 67,040,524**
OKLAHOMA STATE REGENTS' HIGHER EDUCATION CENTERS			
University Ctr-Tulsa	Classroom Bldg-Phase I	NC	15,000,000
State Regents	Telecomm Ntwrk Projects	NC	3,000,000
	Reduction in Support		-3,000,000
University Ctr-Enid	Higher Education Program		619,123
University Ctr-Enid	Match for Local Support		1,980,877
	Sub-Total:		2,600,000
University Ctr-Ardmore	Higher Education Program		619,123
Univ. Ctr-Muskogee	Higher Education Program		619,123
Univ. Ctr-Idabell	Higher Education Program		619,123
STATE REGENTS' HIGHER EDUCATION CENTERS, SUB-TOTAL:			**$ 19,452,369**
SUB-TOTAL, HIGHER EDUCATION PORTION OF BOND ISSUE:			**$ 258,038,075**

3. Creation of an Oklahoma Higher Education Facilities Authority, contingent upon passing the Phase One Bond Issue (November, 1992).

This study recommends creation of a fifteen member Oklahoma Higher Education Facilities Authority (Authority). The Authority shall have five responsibilities: first, to administer the receipts of the Gross Receipts Tax on Utilities; second, to accept the validated Campus Master Plans prepared and approved by the Oklahoma State Regents for Higher Education; third, to develop and approve a coordinated capital master plan for the state's public higher education physical infrastructure; fourth, once those financing priorities are determined, to then appropriate such sums as needed to the governing boards of the specific institution of higher education for actual expenditure; and fifth, to provide an annual report to all of the chief executive officers and regents of publicly controlled institutions of higher education, as well as to all of the members of the Oklahoma Legislature and the Governor of Oklahoma.

4. A dedicated, permanent revenue stream of funds is needed to provide a sound foundation to solve the problem.

This study also supports the position of the legislative leadership, who in the 1991 Session of the Oklahoma Legislature strongly opposed use of the General Revenue Fund to provide a stream of revenue for repayment of a bond issue to support higher education facilities. During the decades of the 1970s and 1980s, Oklahoma State government was highly dependent upon severance taxes, particularly the Gross Production Tax on oil and natural gas. In the early 1980s, severance taxes exceeded 25 percent of total General Revenue Fund collections (and actually exceeded 30 percent in 1982), while in FY-91 severance taxes provided less than 7 percent of total revenue. Alexander B. Holmes, Director of State Finance during the second Bellmon Administration, wrote that "The oil bust of the 1980s taught (retaught?) the lesson that the economy of the state could not provide the sustained growth necessary for the welfare of Oklahoma's citizens if it were based upon narrow economic sectors." Article VI of the United States Constitution requires that units of government under its jurisdiction, including the State of Oklahoma, make good its contractual obligations.

This legal requirement means bond holders are first in line for state dollars even in the hardest of economic times, and for this reason a dedicated predictable revenue stream is a far superior approach to finance capital needs, which are necessarily long-term in nature. Governor Walters' Capital Budget Report to the 1991 Oklahoma Legislature stated that:

> Bond financing of capital expenditures is a universally acceptable method of providing for long term assets that will provide services over a period of many years and perhaps over several generations. Capital expenditures cannot always be financed by incremental or annual amounts. A structure cannot be built on the basis of one twenty-fifth of the total desired size each year for twenty five years. It must be built at one time. For assets in this category, **bond financing represents a "pay as you use" method of financing by providing a vehicle for spreading the cost to those who receive the benefits** (emphasis added). Annual debt service payments can be thought of as payment for the use of an asset for that particular year (p.17).

There was an important technical difference between the 1990 Legislature's position and that of Governor Walters: the last major bond issue for higher education, the Health and Education for a Richer Oklahoma or HERO bond issue, was passed in 1968. The HERO bonds were funded by taxes of cigarettes. As the HERO bonds were paid off during the years of the Bellmon Administration, portions of the annual revenue generated by the cigarette taxes reverted into the state's General Revenue Fund (GRF). Passage of the Education Reform and Improvement Act of 1990, referred hereafter as House Bill 1017, the most comprehensive education reform package since 1947, requires roughly $50 to $60 million in new funding for common education each year for a five year period. The legislative leadership has viewed those reverted cigarette taxes as part a permanent revenue mix supporting the state's GRF. Looking ahead to future HB1017 commitments, it is easy to understand why the legislature was hesitant to over commit itself as it remembered the hard-fought battles over the four tax increases approved during the 1980s which preserved the state's revenue base following the oil price bust. It is important to note that in each of the four years of his administration, Governor Bellmon proposed reissuing the expired debt following the paying off of the HERO bonds using the excess cigarette tax

revenue. Thus, the use of taxes on bingo and the like is consistent with the tax methods employed in the past years in Oklahoma.

5. The most qualified entities to evaluate higher education's needs are those who will utilize and function within those facilities.

A December 16, 1991 memorandum from the State Bond Advisor's Office to the Executive and Legislative Bond Oversight Commission noted that, "As part of their credit rating process, both Standard & Poor's Corporation and Moody's Investors Service base their analysis on four areas: (1) financial condition; (2) economic factors; (3) indebtedness; and (4) administrative factors." Among the financial conditions to be considered are current and likely future needs (in the case of Oklahoma, for example, the state's longer term financial commitment to HB1017 reforms would be factored in, as would an analysis of Oklahoma's taxing capacity). Economic factors that would be evaluated include the diversity of the overall economy of the state and a forecast of the strengths and weaknesses of the various component parts thereof. Indebtedness would be a major factor evaluated by the credit raters; specifically how much debt is out there already, are there dedicated revenue streams to adequately support the existing indebtedness, and how reliable and predictable are the revenue streams that would support additional borrowing. Finally, there are administrative factors, which show that a state has a comprehensive plan in place and a logical method of evaluating the needs and appropriately disbursing the proceeds of the incurred debt.

The State Bond Advisor's report of December 16, 1991, strongly recommended the development of a "Capital Improvement Plan for the State of Oklahoma," that would: (1) identify public facility and equipment requirements; (2) evaluate and rank these requirements in order of priority; and (3) schedule the funding and implementation of the capital projects. The report noted:

> ...It is important to recognize that an effective capital improvement program consists of two distinct, but closely related components: the "process" and the "plan." The process provides clear instructions to all participants concerning the procedures that are to be followed in identifying, evaluating, and ranking capital project requests. The plan is the capital improvement document that

describes the projects expected to be undertaken over a multi-year period. The plan includes a detailed breakdown of the sources of funding for all approved projects.

A carefully designed capital improvement process will assist the State with the development of a viable, well-conceived capital improvement plan. The purpose of the process component of the program is to allow the State's elected officials to make informed decisions concerning the use of its limited resources for capital spending. If each capital project request has been subjected to the same review and evaluation procedures - initially at the department or agency level and later at the state level - elected officials have some confidence that only true capital "needs" (as opposed to "wants") are being considered.

In an ideal world, the State Bond Advisor would develop a Capital Improvement Plan for the entire state that would include every function of state government, including the Oklahoma Turnpike Authority and other authorities, and consider local government needs as well, since one of the evaluations made by the credit rating services is to evaluate total state indebtedness in light of the total state and local indebtedness combined. Within this context, all smaller funds, such as that administered by the Commissioners of the Land Office of the State of Oklahoma, would go into a single pot to be broadly used and planned for. Guidelines to evaluate all facilities would be developed, and the state might even consider a "turn-key" operation as presently exists in the State of Illinois, with its Capital Development Board. In Illinois, the legislature appropriates funds to the Capital Development Board for the benefit of a specific institution, and the Capital Development Board then constructs the building independent of the college or university board of regents, which has no effective control over the process until such time that the key is handed to the institution at time of facility completion.

While it is entirely appropriate and necessary for the state to effectuate planning in its capital expenditure process, such a turn-key operation would be inappropriate for Oklahoma for the following reasons: First, the issue of <u>trust</u>.

At some point in time, a governor and legislature have to assume that the people they appoint as regents or trustees of the research universities, comprehensive

universities, and community colleges can be trusted, as public-spirited citizens who give countless hours of service without financial benefit, assuming proper responsibility for institutional governance. John Nason and other higher education commentators of issues related to trusteeship have long argued that overall campus governance must vest in the local governing board, and that the governing board has a particularly important role in maintaining the physical plant. Experience has shown that the most well-designed campuses are almost always those where the campus physical infrastructure and campus aesthetics are considered together, where when facilities are conceptualized and designed, those who would live in the facilities are actually involved in the design of them.

This is especially a problem for graduate level education, in that the appropriate technical knowledge of faculty research needs does not commonly exist on staffs at the state level (a reason many states with large higher education systems have not followed a centralized model). In Illinois, as an example, there are numerous examples where the Capital Development Board constructs a building but fails to fund the underground integration of the cables to network the computing and communications capacities. State agency staff do not typically possess the expertise to know how to construct "clean" laboratories for research (a highly technical enterprise in and of itself). What can and does at times happen is that the CDB will duplicate the expertise that exists on campus in technical areas, and that the institution will have to duplicate state efforts and assign individuals to serve as "Clerk of the Works" and monitor what the CDB is doing in their name, because while the CDB will hand over the key and leave town following project completion, the institution has to live with the results for at least fifty years and probably longer.

Thus, this study strongly supports the development of an overall capital improvement plan for the State of Oklahoma. Such a plan which would hopefully include all state agencies. But, while highly appropriate for the State Bond Advisor to consider the overall capital needs of higher education in the context of the rest of the state, that role should be a limited one: to assist state policymakers in the devising of a financial plan to meet those needs. Higher education officials themselves, starting

with the governing boards, and their administrations and staffs, together with elected officials--and not Bond Advisors--know best how to evaluate those specific needs.

This study recommends leaving the evaluation of local needs at the level of campus boards of regents, and the coordination of statewide needs in the hands of the Oklahoma State Regents for Higher Education, which has performed this function quite well during the past fifty years. It is important to note that as part of this study, members of the research team visited 5 of the 27 campuses, in an effort to validate the physical infrastructure needs suggested by the campus master plans. In all cases it was clear that the needs were real, not imaginary.

Current initiatives of the Oklahoma State Regents for Higher Education (OSHRE) and their very competent staff in this arena deserve note here: At the February, 1991 meeting of the OSRHE, when the $1.1 billion total systemwide need was accepted, the OSRHE authorized its staff to perform a comprehensive master plan of space utilization. It is assumed that following completion of this plan, architects and engineers will be sent into the field to validate the technical costs of the various facilities proposal of the campuses (this was last completed systemwide during the closing years of the OSRHE Chancellorship of E.T. Dunlap, in 1979). It is at that time that much more precise and technical data will allow for an exact determination of cost; however since it will take at least two and perhaps four years following approval of a bond issue by the people of Oklahoma to spend funds on a large scale, gaining exact data can be performed at the same time a permanent funding foundation is laid. The study recommends that Oklahoma move now, since the needs are real and immediate. Thus, passage of the short-term bond issue now is called for with a plan in place for a larger, revolving issue in the near future, upon completion of this validation process.

6. Oklahoma clearly possesses the capacity to support both the immediate $360 million bond issue and a larger bond issue for infrastructure.

Table 8, "Appropriations of State Tax Funds for Operating Expenses of Higher Education for Fiscal Years 1981-82, 1989-90, and 1991-92, With Percentages of Gain

TABLE 8:
APPROPRIATIONS OF STATE TAX FUNDS FOR OPERATING EXPENSES OF HIGHER EDUCATION, FISCAL YEARS 1981-82, 1989-90, 1990-91, AND 1991-92, WITH PERCENTAGE GAIN OVER ONE, TWO, AND TEN YEARS FOR "BIG EIGHT" STATES.
(in thousands of dollars)

State	Year 1981-82	Year 1989-90	Year 1990-91	Year 1991-92	1-year Gain %	2-year Gain %	10-Year Gain %
Nebraska	181,645	293,242	329,122	340,106	3	16	87
Missouri	323,860	580,005	640,194	569,257	-6	-2	76
Iowa	322,582	528,499	579,777	563,570	-3	7	75
Colorado	305,791	505,994	508,758	523,785	3	4	71
Oklahoma	325,553	453,090	499,621	542,277	9	20	67
Kansas	278,662	435,609	451,299	446,517	-1	3	60
NATIONAL AVERAGES							
	22,982,123	39,106,423	40,143,113	40,096,613	0	3	74

SOURCE: Grapevine, "Appropriations of State Tax Funds for Operating Expenses of Higher Education for Fiscal Years 1981-82, 1989-90, 1990-91, and 1991-91, with Percentages of Gain Over the Most Recent One, Two, and Ten Years," published by the Center for Higher Education, Illinois State University, Edward R. Hines, Editor, Number 374, page 3072.

NOTE: According to the same source, when ranking percentage gain in operating expenses of higher education over the ten year period, 1981-82 to 1991-1992, 15 states ranked behind Oklahoma and 34 ahead.

Over the Most Recent One, Two and Ten Years (in thousands of dollars), compares Oklahoma to Big Eight and other selected states. This table clearly shows that while the state's effort for the past two years has been good, it still has not even come close to approaching the effort needed to make up for the bad years of the middle years of the decade. Thirty-five states ranked ahead of Oklahoma in the critical 10-Year Gain category, while Oklahoma ranked ahead of but fourteen. Over the past ten years, only Kansas made a smaller gain than Oklahoma among the Big Eight states, but again, the budget base from which Kansas started was higher. The significance of the data presented in Table 8 is that Oklahoma has a long way to go to achieve parity in its relative effort in support of higher education's operating budget needs. Additionally, it can be logically inferred that if the state's institutions have had trouble competing programmatically due to the severe underfunding of operating budgets, then it is highly likely that capital needs were also further delayed and ignored. This indeed has been the case since 1968.

Turning to capital needs, currently the State of Oklahoma enjoys an excellent bond rating. According to the Capital Budget for FY-91 submitted by Governor Walters to the Legislature:

> Bond ratings impact the marketability of existing bonds and influence the interest rates on new issues. Interest rates driven up by poor bond ratings make capital funding more costly, reducing the purchasing power of the issue. This is why state authorities have invested so much energy in protecting the state's bond rating since early 1987, when Moody's Investor Services, in a surprise move, downgraded the State's General Obligation Bond rating from AAA to AA. This was a blow made worse by the fact that not only had Oklahoma carried an AAA bond rating for the previous fourteen years, but during that time the State was rated and traded in the top three among all states, much of that time as number one.
>
> The downturn of the Oklahoma economy associated with the oil and gas industry was the key influence in the downgrade by the rating service. What was not considered was the fact that Oklahoma's state and local tax burden remains among the lowest in the country, as does its debt burden. On each of the key debt burden ratios, Oklahoma ranks among the lowest of all states, ranging from 42nd to 44th lowest. Oklahoma's per capita public debt is only 27.4% of the national average. Also excluded from the bond rating

consideration were the conservative budgeting and debt procedures mandated by the Constitution.

Since 1987, state government experts have aggressively educated the rating services and associated groups concerning the state's newly diversified revenue base, its low debt ration and its appropriately conservative fiscal policy. The effort has paid dividends. Though the Moody bond rating for the state continues at AA, current rating reports reflect the success the state has had since 1987 in avoiding deficits and creating a balanced revenue structure. The administration has also secured an AA bond rating from Standard and Poor's as of July 1989 for the state's general obligation bonds. This can enhance the marketability of the state's bonds because dual ratings are mutually reinforcing to investors.

The state's bonding capacity is determined by a variety of factors, the most important of which are (1) balancing the proposed bond issue with the state's ability to repay (which is why in the long term a larger dedicated, predictable stream of revenue is suggested in this study); (2) assessing how these expenditures fit into an overall comprehensive plan of needs (not mere wants or wishes; (3) the record of administration of the proceeds of the indebtedness; and (4) general economic conditions. Oklahoma's economy is far stronger than that of other states, while the record of sound administration of bonded indebtedness by the Oklahoma State Higher Education is long and well-known, dating from the Chancellorship of E.T. Dunlap (1961-1982), whose tenure in office was the longest of any state higher education chief executive officer during the Cold War Era.

With the approval of the revenue stream proposed above, the financial capacity would exist to allow for the orderly meeting of needs. Because the sources of revenue would be predictable and stable, a favorable credit rating on the bonds would be anticipated, allowing for lower issuance cost. Today's lower interest rates also make entry into the capital markets favorable for the State at this time, as interest rates are the lowest they have been in twenty years. The proposed plan has as its goal fully funding the state's share of $821 million of capital needs. In any bond issue, a sinking fund that usually is about 10 percent of the total bond issue is set aside for debt service, and to provide a guarantee that the first interest payment can be met. Thus,

to generate sufficient funds to meet the state's share of $821 million, as determined by the OSRHE, a bond issue totalling $914 million will be required. Thus, for the long and short term, bingo taxes are an entirely appropriate method to finance a relatively small bond issue. For the larger issue and for a steam of revenue that is more predictable the proposed Gross Receipts Tax on Homeowner Electrical Usage suggested by this study could easily and painlessly produce the needed $60 to $80 million in annual revenues to sustain the bond issue. Under this plan, any excess funds could only be spent for homeowner improvements. Further, it is estimated that a tax rate of .00335 cents per kilowatt would generate about $66.4 million per year, well within a comfort zone for bond issuers. The tax rate of .00335 cents per kilowatt hour is estimated to cost the average Oklahoma homeowner $4.52 per month, or $54.19 per year. It is important to note that under this plan, any additional funds generated above and beyond the debt servicing of the bond issue would also be allocated for capital improvement or maintenance of higher education facilities.

One way or another it will cost the people of Oklahoma money to fund a long term capital plan for Oklahoma's public higher education infrastructure. Under this plan, Oklahoma would have in place a national model that would provide its students the teaching and learning tools they need and help attract and retain nationally renowned faculty who can help the state in its efforts to develop economically.

It is important to note the vastly improved position due to the changes and improvements in the Oklahoma state tax mix since the early 1980's. In the case of evaluating the State of Oklahoma's financial condition as compared to that of other states, Oklahoma is today in strong shape. This is due to the greater diversity in the revenue mix that now exists following the overreliance upon oil and gas severance taxes during the early 1980s, and the balanced budget amendments that created the state's so-called "Rainy Day Fund." When a bond rating service examines a state's capacity to bond additional indebtedness, like any lending agency, it will want to know how the proposed bond issue will be paid and necessarily will evaluate the creditworthiness of the borrower. Among the factors to be considered are basic atmospherics of the current state budget situation. Here Oklahoma fares well when

compared to other states. As an example, the State of California in July and August of 1992 is paying its state employees with warrants (ie: IOU's), and has seen its state bond rating decline to BBB. According to reports of the State Bond Advisor, Oklahoma has achieved an AA bond rating (as per Standard and Poors rating service) and an extremely low amount of overall bonded indebtedness, and thus has the capacity to greatly expand indebtedness should it choose to and easily support such debt.

7. Access to quality higher education should be the foundation of Oklahoma public higher education.

The current facilities funding formula negatively impacts the capacity of Oklahoma to provide access to higher education to all deserving students. In the decade of the 1980s, the major population growth within the State of Oklahoma has occurred at its two major metropolitan areas, and it is here were the lack of adequate facilities most negatively impacts access. Tulsa Junior College, for example, in 1991 secured a major private gift of 100 acres of land from the Jatras family to provide a future site for its West Campus. This campus will eventually serve the people of the west Tulsa area, an area inhabited by working class families as measured by statistics that place households in the lower to middle class range in per capita income. Officials at Tulsa Junior College estimate that at least $23 million of funding will be needed to provide facilities that can deliver an essential core of postsecondary academic programs at the proposed West Campus. Without a major injection of funds for public higher education facilities, there will be no West Campus, and potentially thousands of students will not be served. It is impossible to assign a number that adequately measures the long-term economic impact of a lesser educated population, which would be caused by the failure of the state to meet its stated obligation of providing an affordable first two years of college to all of its deserving citizens.

What can be said for certain now is that 42 percent of the high school class of 1986 attended public institution of higher education that fall (1986), compared to 38 percent of the class of 1990. Clearly, if the new Tulsa Junior College West Campus was open

this fall, it would serve between 2,500 and 3,000 students. This project, to be funded by the 1992 bond issue, can provide access to thousands. The State of Oklahoma should not ignore this long term human capital investment.

8. A long term solution is called for; Oklahoma should seriously consider emulating the Florida model.

Perhaps no state in the Union has had a greater challenge in matching educational facility needs to a fast moving target than has the State of Florida. In 1950, the population of the state was 1.75 million; by 1980, the population of Dade County itself was 1.8 million. During the last decade, people moved to Florida at a rate of about 1,300 people per day. Colleges and universities in the State of Florida are required to submit five year plans for their facilities needs. The state board will then adopt the plan and prepare a finalized three year plan which is submitted and then approved by the governor and sent to the legislature. New construction is approved on a project by project basis and the remainder of available funds are subjected to a formula which is utilized for repairs and maintenance. The colleges and universities are required to spend 10% of the funds allocated for repairs and maintenance on health and safety related items. Because planning is so directly tied to budgeting, there is less than 1 percent of all facilities needs decided on the floor of the legislature; this does not mean that the people's will, as expressed by their elected representatives is thwarted. Rather it means that the arena for their input is at a different level that the final day session on the floor of the legislature.

Florida provides for a system of funding their needs for renovation, remodeling, new construction, and maintenance of their entire school system's physical plant. The colleges and universities needs are funded by a percentage of the tax levied on utilities. The utilities tax brings in between $400 and $500 million dollars each year to the state. The state allocates 2.5 percent of the utilities tax, which is a constitutional provision, for the entire common and higher education system. Further revenues for the community college system are provided from the interest on the capitalization of license tag fees which amounts to $500 to $600 thousand dollars of income. As an

example Miami Dade Community College receives approximately 95% of its maintenance and capitalization funds from the utilities tax and the remainder from the interest on license tag fees. In the last year they have started assessing students one dollar per credit hour which brings in another $1.2 million dollars of revenue for capital facilities. By using a Gross Receipts Tax on Utilities, which in Florida includes taxing telecommunications, oil and natural gas, as well as electrical usage, Florida has a predictable, logical method to finance its public higher education physical infrastructure needs.

Obviously, exemptions to the Gross Tax on Utilities for a state like Oklahoma should reflect local needs; thus, it is recommended that oil and natural gas, as well as telecommunications be exempted from the proposed Gross Receipts Tax on Utilities for Oklahoma.

CONCLUSION

Ernest Boyer, President of the Carnegie Foundation for the Advancement of Teaching, has written extensively on the relationship between good teaching and learning and good facilities: "Good facilities are essential to good learning." Today, Oklahoma public higher education stands at a dramatic, critical juncture: it will either move forward or fall back, it cannot stand still. During the decade of the 1980s, while other states were moving ahead with near double-digit budgetary increases for higher education funding, Oklahoma state government was coping with the revenue crisis stemming from an overreliance upon the Gross Receipts Tax on Gas and Oil, which accounted for nearly 30 percent of all state revenue in 1982. With a nearly non-existent federal role in facilities since 1970, and with the federal budget deficit exceeding $4 trillion, a key assumption to whatever action is taken is that the federal role will be minimal. Thus, failure by the State of Oklahoma to seize the moment and act on its act will produce potential catastrophic harm.